LIST OF CURRENT CLAIMS

1. (Currently Amended) A method of signal processing which is used to separate from a signal registered using a measuring instrument that measures a dynamic phenomenon, a signal associated with a static source in [[the]] a measurement object, in which method the measurement object and the measuring instrument move with respect to one another, wherein the measurement object is freely movable, the method further comprising:

determining the movement of the measuring instrument and the measurement object with respect to one another based on the ~~signals measured~~ signal registered using the measuring instrument;

modelling the movement of the measurement object as a movement of the measuring instrument around the measurement object;

presenting the signal registered as elementary fields in a signal space basis whose basis vector coefficients have been attached to the co-ordinates of the measurement object based on [[the]] a known geometry between the measurement object and the measuring instrument, whereby the signal produced by a static source is detected as a static signal; and

separating the aforementioned static signal from the signal registered ~~measured~~.

2. (Currently Amended) The method as defined in claim 1, characterised in that the movement of the measuring instrument and the measurement object is determined in real time when registering [[the] a ~~measurement~~ signal.

3. (Cancelled).

4. (Currently Amended) The method as defined in claim [[3]] 2, characterised in that at least a portion of external interference fields is eliminated within the presentation of the elementary fields.

5. (Currently Amended) The method as defined in claim ~~3 or~~ 4, characterised in that the elementary fields are calculated using spherical harmonic functions.

6. (Currently Amended) The method as defined in claim 1, characterised in that the determined movement is ~~adapted~~ corrected by using the minimum norm estimate of the current distribution of the measurement object.

7. (Currently Amended) The method as defined in claim 1, characterised in that the [[DC]] static signal is separated from the measurement signal by a high-pass filter.

8. (Currently Amended) The method as defined in claim 1, characterised in that

dividing the ~~measurement~~ signal registered into two periods of time;

separating the aforementioned static signal over either one of the periods of time;

calculating the difference between the ~~original~~ signal registered and the separated static signal over the entire period of time.

9. (Currently Amended) The method as defined in claim 1, characterised in that ~~in conjunction with a neuromagnetic MEG measurement,~~ the movement of the measuring instrument and the measurement object with respect to one another is achieved so that a person being monitored moves his or her intentionally.

10. (Currently Amended) The method as defined in claim 1, characterised in that

measuring the signal caused by magnetic pieces attached to the measurement object, whose location in the co-ordinates of the measurement object is known; and

determining the location of the measurement object in relation to the measuring instrument using the ~~measurement signals~~ <u>signal registered</u>.


11. (Currently Amended)  The method as defined in claim 1 for reducing an interference caused by the movement of a static magnetisation in a biomagnetic signal, characterised in that the ~~registered~~ signal <u>registered</u> is high-pass filtered both prior to presenting the signal <u>registered</u> in the co-ordinates attached to the measurement object and after the presentation.